

WHAT IS CLAIMED IS:

1. A management system for managing network elements, said system comprising:
at least one network element that is managed by said management system;
management processor;
at least one distributed management server that is distributed from said management
processor and communicatively coupled to said management processor; and
at least one policy object residing on and executable by at least one of said at least one
distributed management server, said at least one policy object defining management behavior for
managing at least one of said at least one network element.

2. The management system of claim 1 further comprising:
at least one gateway communicatively coupled to at least one of said at least one
distributed management server and communicatively coupled to at least one of said at least one
network element; and
at least one decision object stored in said at least one gateway, said at least one decision
object defining decision behavior for routing information regarding at least one of said at least
one network element to an appropriate one of said at least one distributed management server for
execution of an appropriate one of said at least one policy object.

3. The management system of claim 2 wherein said decision object is a data path
tree associating attributes of said at least one network element with said at least one policy
object.

4. The management system of claim 1 further comprising:
a policy server communicatively coupled to said at least one distributed management
server, said policy server storing said at least one policy object and operable to distribute said at
least one policy object to said at least one distributed management server.

5. The management system of claim 4 further comprising:

a policy builder user interface communicatively coupled to said policy server, said policy builder user interface operable to receive input from a user for defining policy objects.

6. The management system of claim 4 further comprising:

a configuration file communicatively accessible by said policy server, said configuration file storing information defining at least one of said at least one distributed management server to which each of said at least one policy object is to reside.

7. The management system of claim 1 further comprising:

an alert server communicatively coupled to said management processor wherein said alert server generates alerts based on fault conditions transmitted by said at least one distributed management system in accordance with said at least one policy object.

8. The management system of claim 1 further comprising:

a management information base communicatively coupled to said management processor, said management information base operable to store software objects corresponding to said at least one network element.

9. The management system of claim 6 wherein:

said policy builder comprising an interface operable to receive user input defining said information stored to said configuration file.

10. The management system of claim 6 wherein said policy server comprises:

logic executable to distribute said at least one policy object to said at least one distributed management server in accordance with said configuration file.

11. A method for managing at network elements of a communication network, said method comprising the steps of:

implementing a plurality of distributed management servers that are each distributed from and communicatively coupled to a central management processor;

communicatively coupling each of said network elements to at least one of said plurality of distributed management servers; and

distributing at least one policy object defining management behavior for managing at least one of said network elements.

12. The method of claim 11 further comprising the steps of:

communicatively coupling at least one gateway to said plurality distributed management servers and to at least one of said network elements; and

storing at least one decision object on said at least one gateway, said decision object defining decision behavior for routing information regarding said at least one of said network elements to an appropriate one of said plurality of distributed management servers for invoking execution of an appropriate one of and said at least one policy object thereon.

13. The method of claim 12 wherein said decision object is a data path tree associating attributes of said at least one network element with said at least one policy object.

14. The method of claim 11 further comprising the steps of:

storing said at least one policy object on a policy server communicatively coupled to said at plurality of distributed management servers; and

said policy server distributing said at least one policy object to an appropriate one or more of said plurality of distributed management servers.

15. The method of claim 14 further comprising the steps of:

user interacting with a policy builder interface that is communicatively coupled to said policy server for defining said at least one policy object.

16. The method of claim 14 further comprising the steps of:

determining said appropriate one or more of said plurality of distributed management servers to which said at least one policy object stored on said policy server based at least in part on information stored in a configuration file communicatively accessible by said policy server.

17. The method of claim 11 further comprising the steps of:

an alert server communicatively coupled to said central management processor generating alert an based on a fault condition for at least one of said network elements in accordance with said at least one policy object.

18. The method of claim 11 further comprising the steps of:

a management information base storing information regarding said at least one network element and interrelationships between said at least one network element, said management information base communicatively coupled to said management processor.

19. The method of claim16 further comprising the step of:

user inputting said information stored to said configuration file.

20. A system of managing network elements, said system comprising:
a plurality of managed network elements;
a central management processor means;
plurality of software objects for defining behavior for managing said plurality of network elements; and

plurality of distributed processing means distributed from and communicatively coupled to said central management processor means, each of said plurality of software objects residing on at least one of said plurality of distributed processing means for execution thereon.

21. The system of claim 20 further comprising:
means for normalization of data received from said plurality of managed network elements; and
means for data path selection between said means of data normalization and said plurality of distributed processing means.

22. The system of claim 20 further comprising:
means for associating attributes of said plurality of managed network elements with said plurality of distributed processing means for implementing the defined management behavior.

23. The system of claim 20 further comprising:
means for storing the defined management behavior; and
means for distributing the defined management behavior to said means plurality of distributed processing means.

24. The system of claim 23 further comprising:
means for graphically generating the defined management behavior.

25. The system of claim 20 further comprising:
means for generating alerts in accordance with the described management behavior.

26. The system of claim 20 further comprising:
means for providing information regarding said plurality of network elements and interrelationships between said plurality of network elements.

27. The system of claim 20 further comprising:

means communicatively coupled to said plurality of distributed processing means for storing said plurality of software objects and for distributing each of said plurality of software objects to appropriate said plurality of distributed processing means.

28. The system of claim 27 wherein said means for distributing each of said plurality of software objects to appropriate said plurality of distributed processing means further comprises :

means for determining appropriate said plurality of distributed processing means.

29. The system of claim 28 wherein:

said means for determining appropriate said plurality of distributed processing means is a configuration file.